

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



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Order Instituting Rulemaking to establish
the California Institute for Climate Solutions.

Rulemaking 07-09-008

**REPLY COMMENTS OF
THE NATURAL RESOURCES DEFENSE COUNCIL
ON THE RULEMAKING TO CONSIDER ESTABLISHING
CALIFORNIA INSTITUTE FOR CLIMATE SOLUTIONS**

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INTRODUCTION AND SUMMARY

The Natural Resources Defense Council (NRDC) respectfully submits these reply comments in accordance with the *Order Instituting Rulemaking to Consider Establishing California Institute for Climate Solutions* issued September 25, 2007.

NRDC is a non-profit membership organization with a long-standing interest in minimizing the societal costs of the reliable energy services that a healthy California economy needs. In this proceeding, NRDC represents its more than 124,000 California members' interest in receiving affordable energy services and reducing the environmental impact of California's energy consumption.

NRDC continues to support the general mission for the CICS, laid out in the OIR, to support the achievement of California's greenhouse gas reduction goals in three key ways: 1) conduct mission-oriented, applied research that results in practical, and technical solutions; 2) train the next generation of researchers and professionals; and 3) disseminate knowledge widely to practicing public and private sector professionals. NRDC continues to recommend that this mission be incorporated in any final design. The investments of the CICS should be in the public interest, focus on providing benefits to billpayers, and be consistent with the California Global Warming Solutions Act and other state policy goals and requirements.

NRDC commends the University of California (UC) for working closely with its institutional colleagues to revise and to strengthen its originally submitted CICS proposal. The UC Revised Proposal is much improved and includes a process to address the broader state coordination need (but only on energy-related issues) discussed in the NRDC Opening Comments aimed at avoiding duplication, maximizing coordination, leverage and cost-effective results, and identifying gaps; some helpful clarification on scope of activities and their relation to billpayer benefits; broader representation of the other California academic and research institutions in the CICS Board and structure; increased emphasis on workforce development; and an increased emphasis on leveraging funds and resources from federal, private and other sources.

Increased, aggressive public interest research, technology and workforce development, and education efforts are necessary to tackle California's long-term global warming emissions reduction goals in the most cost-effective manner. No commenting party seriously challenged the need for these activities in their opening comments. However, common concerns expressed by the majority of Parties, and shared by NRDC, include ensuring no duplication of existing programs; that costs not be borne by IOU billpayers alone; the necessity of leveraging billpayer funds to obtain federal and private resources; that all academic institutions in the state be allowed to participate; that stakeholder representation on the Board and committee be truly balanced; that the CPUC maintain adequate control of investments to ensure billpayer benefits; and that the CICS and its investments be regularly and independently reviewed. The UC Revised Proposal addressed many, but not all of these concerns.

NRDC continues to strongly support the proposed funding of \$60 million per year for ten years for energy-related research and education/workforce development, and the development of a CICS-like institution. However, further development of the CICS is needed before the CPUC can prudently approve its development. NRDC continues to believe that formation of the CICS is a worthy effort and that it should move forward as quickly as is feasible. Therefore, we recommend that the CPUC hold a public workshop to address the limited set of issues, discussed below, that must be resolved. With this added input, the CPUC should be in a position to appropriately revise and adopt the CICS proposal.

In these comments, NRDC responds to opening comments filed by Parties on November 2, 2007 on the CICS Original Proposal, and to the UC Revised Proposal. In summary, our reply

comments elaborate on the following key recommendations and incorporate by reference the recommendations made in NRDC's Opening Comments:

- The CPUC should require the CICS to implement its mission in the context of the three levels of planning recommended below (Statewide Global Warming Solutions *Action Plan*; Sustainable Energy Roadmap; and the CICS *Annual Agenda*) in order to avoid duplication, maximize coordination, leverage and cost-effective results, and identify gaps in necessary climate-related efforts statewide.
- The CPUC should clarify the general scope of activities before considering approval of the CICS to ensure benefits to the funders (billpayers).
- Both the CEC and the CARB should be included on the Board given the critical and directly related nature of their missions to the CICS. In addition, if industry is included on the Board, qualified public interest representatives should also be included in order to ensure broad and balanced representation,.
- Modifications/additions to the Revised Proposal must be made in order to ensure the CPUC maintains sufficient control over the prudence of billpayer fund expenditures.
- The CPUC should convene a public workshop to discuss: 1) the process by which duplication can be avoided and resources maximized (e.g. *Action Plan* and *Roadmap*); 2) the general scope appropriate for CICS activities; and 3) the nature, composition and reporting structure of the Board and its Committees.

We look forward to discussing these comments and the proposal in further detail.

Statewide Action Plan and the Sustainable Energy Roadmap – Both are Necessary

NRDC strongly agrees with UC's assertion that "there is currently no coordinated effort that can provide the state with an integrated knowledge base in the priority areas that need to be addressed in order to reduce greenhouse gas emissions." (UC comments, p. 17) This reason, plus the concern that the CICS avoid duplication with existing research, technology and education/workforce development efforts both within the energy issue area and outside, led to the NRDC proposal to develop a statewide Strategic Global Warming Solutions Research, Technology Development and Education/Workforce Development *Action Plan*. The Sustainable

Energy *Roadmap* described in the UC Revised Proposal would have a focus on emissions related to power generation and energy consumption and would be an important and much more detailed subset of the envisioned *Action Plan*. NRDC strongly supports the development of such a *Roadmap* as a critical way to focus the CICS annual agenda, but both the *Roadmap* and the *Action Plan* are needed to truly avoid duplication, maximize coordination, leverage and cost-effective results, and identify gaps in necessary climate-related efforts statewide.¹

NRDC envisions three levels of planning, the first of which need not be coordinated by the CICS:

- 1) **A statewide *Action Plan*** that would encompass all climate-related issue areas including power generation and consumption emissions, and also transportation, climate modeling and other non-electricity and natural gas-related activities. The *Action Plan* would include an assessment of research, technology development and education/workforce development needed to make significant progress on California's global warming and related goals, provide high level strategic priorities direction, include a catalogue of current and planned activities and identify where gaps in needed effort may exist. It would begin by incorporating all existing roadmaps or strategic plans developed by agencies and institutions currently conducting research, technology development and education/workforce development related to climate change (many exist). Ideally, the process for development of the *Action Plan* would be convened jointly by all relevant state agencies and include broad and balanced participation and input from stakeholders, similar to the process for the Energy Action Plan.
- 2) **A Sustainable Energy *Roadmap***, as described in the UC Revised Proposal, that would be a more detailed, CICS-mission specific planning exercise to define broad goals and options that would lead the State to achieve significantly reduced emissions from electricity and natural gas generation and consumption (or other key targets related to climate change) in a prescribed period of time with prescribed

¹ NRDC bases this recommendation on an assumption that the CICS will be focused on electricity and natural gas-related activities funded by billpayers. The scope of the CICS was not entirely clear from UC's original and revised proposals and Parties' comments. If the CICS was to become a much more broadly funded, and thus more broadly scoped institute, then it might be appropriate for the CICS to coordinate the *Action Plan*.

prospective performance metrics. It would serve as a long-term strategic plan to guide the development of CICS's own annual research and education agenda. Ideally, the CICS *Roadmap* should be developed in the context of the *Action Plan* and with the balanced participation of leading academic, government, industry and public interest experts, as well as billpayers and other stakeholders.

- 3) **The CICS *Annual Agenda***, as described in the UC Revised Proposal, will use the *Roadmap* as a strategic plan to develop the CICS annual research and education/training projects, initiated and funded through a competitive peer-reviewed process.

The process by which duplication is avoided and resources are maximized was a major theme in Parties' comments and NRDC recommends that this issue, as well as the proposed Action Plan and Roadmap, be a subject of Workshop discussion.

Scope of CICS activities

The scope of CICS activities should be focused on areas that are both relevant and beneficial to billpayers. While the Revised Proposal did usefully clarify many areas relevant to the proposed scope, the overall scope is still unclear. NRDC agrees that the details of activities to be conducted by the CICS should be developed in the context of a broader *Action Plan* and *Roadmap*. However, the general scope of activities must be clarified before CPUC consideration of approval to ensure benefits to the funders (billpayers). This is one of the limited issue areas that NRDC believes is appropriate for Workshop discussion.

There were a number of very interesting and relevant programs/issues recommended in the UC proposals and in Parties' comments, but time does not allow us a full discussion of these recommendations. Some areas of scope and proposed activities were better fleshed out in the Revised Proposal, such as the proposed emphasis on education/training and workforce development, which NRDC strongly supports. There were also areas proposed in both the UC proposals and Parties' comments that NRDC does not believe should be within the scope of CICS activities because other entities are already covering those areas or it is not appropriate for the Institution. For example, policy development activities that get into policy formulation,

development and outreach are the purview of the Legislature, Governor and regulatory agencies and are not appropriate for CICS. However, it might be appropriate if the focus of the policy-related activities were on technical impact and design analysis of policy options as information for policy makers. Finally, other focus areas are not relevant enough to the funders (billpayers). For example, geoengineering, climate modeling using satellites and non-related transportation are likely to fit in this category. Many of these activities, however, might fit within the broader *Statewide Action Plan*.

Legal Authority to Establish the CICS and the Need for Hearing

The Consumer Federation of California (CFC) argues that the CPUC does not have the authority to establish funding for the CICS, but that even if it does, it must conduct an adjudicative hearing. Both of these arguments are without merit.

The purpose of the proposed CICS is “‘cognate and germane to the regulation of public utilities,’” contrary to CFC’s suggestion otherwise. (CFC Comments, p. 15, quoting *Southern Cal. Gas Co. v. Public Utilities Com.* (1979) 24 Cal.3d 653, 656.) The CICS would further research and investments in energy efficiency, renewable energy, planning for energy needs under changed climate conditions, and energy workforce education. These investments are well-within the scope of utility regulation, as articulated by the Legislature: “a principal goal of electric and natural gas utilities’ resource planning and investment shall be to minimize the cost to society of the reliable energy services that are provided by natural gas and electricity, and to improve the environment and to encourage the diversity of energy sources through improvements in energy efficiency and development of renewable energy resources, such as wind, solar, biomass, and geothermal energy;” and “electrical and natural gas utilities should seek to exploit all practicable and cost-effective conservation and improvements in the efficiency of energy use and distribution that offer equivalent or better system reliability, and which are not being exploited by any other entity.” (Pub. Util. Code, § 701.1, subds. (a) and (b).)

The California Global Warming Solutions Act (AB 32) requires that “[a]ll state agencies shall consider and implement strategies to reduce their greenhouse gas emissions.” (Health & Safety Code, § 38592, subd. (a).) The proposed CICS would be a significant step toward CPUC compliance with this legislative mandate. The Institute would advance the goals articulated in AB 32: “*investing in the development of innovative and pioneering technologies* will assist

California in achieving the 2020 statewide limit on emissions of greenhouse gases established by this division and will provide an opportunity for the state to take a global economic and technological leadership role in reducing emissions of greenhouse gases.” (Health & Safety Code, § 38501, subd. (e), italics added.)

CFC’s contention that the CPUC may establish new rates only “upon a hearing” is mistaken. As the California Supreme Court has stated, Public Utility Code section 454 “does not require [the CPUC] to hold a ‘public hearing’ before allowing a change in rates.” (*Southern California Edison Co. v. Peevey* (2003) 31 Cal.4th 781, 804.)² CFC cites no relevant authority for its contention, citing only two sections that relate only to specific proceedings not herein implicated. Section 729 addresses investigations, and section 730 addresses determinations of “the kind and character of facilities and the extent of the operation thereof, necessary reasonably and adequately to meet public requirements for service furnished by common carriers between any two or more points. (Pub. Util. Code, §§ 729, 730.)

CFC suggests that funding the CICS through increased rates paid only by customers of IOUs would constitute a “taking” by the state under the Fifth Amendment, and thus fundamental rights under the Constitution would be affected. However, funding the CICS through increased rates would not “forc[e] some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole.” (*Armstrong v. United States* (1960) 364 U.S. 40, 49.) Instead, it is reasonable for IOU billpayers, who constitute a large portion of the electricity and natural gas customers in the state, to fund the CICS. These billpayers would receive significant benefits from the Institute’s investments in energy research and education.

Even assuming *arguendo* that funding the CICS through increased rates might implicate fundamental constitutional rights, the proceeding that considers whether to create the CICS certainly need not be adjudicatory. Ratesetting is legislative, rather than adjudicatory. (*Southern Cal. Gas Co. v. Public Utilities Com.* (1979) 23 Cal.3d 470, 480 [“The setting of utility rates and rates of return is a legislative act, delegated by the Legislature to the Public Utilities Commission.”].) This proceeding does not meet the Commission’s definition of an “adjudicatory” proceeding. “Adjudicatory” proceedings are “(1) enforcement investigations into

² “The commission may adopt rules it considers reasonable and proper for each class of public utility providing for the nature of the showing required to be made in support of proposed rate changes, the form and manner of the presentation of the showing, *with or without a hearing*, and the procedure to be followed in the consideration thereof.” (Pub. Util. Code, § 454, subd. (b), italics added.)

possible violations of any provision of statutory law or order or rule of the Commission; and (2) complaints against regulated entities, including those complaints that challenge the accuracy of a bill, but excluding those complaints that challenge the reasonableness of rates or charges, past, present, or future.” (CPUC Rule of Prac. & Proc. 1.3, subd. (a).) The CICS proceeding involves neither an enforcement investigation nor a complaint about a regulated entity. CFC cites no valid legal support for its contention that the CPUC must conduct an adjudicatory hearing.³

Funding

One of most common concerns that emerged from the opening comments of Parties is the perceived disconnect between the proposed funding source for CICS (billpayers) and the proposed CICS activities. We share this concern and recommend a narrowing of the scope (as discussed in the section on scope above) to address it.

As we discussed in our opening comments, as electricity and natural gas billpayers, our energy use (and its production) is one of the largest contributors to California’s global warming emissions at about 35%. Since the amount of energy we use and how it is produced is such a large part of the problem, it is only fair that we as billpayers contribute to the solutions. It is also true that transportation-related emissions contribute about 41%; and indeed, NRDC agrees with Parties that we need broader contributions to the overall statewide research and education pot of funds. In fact, there are several additional funders of research and education efforts (though not nearly enough). For example, the recently passed AB118 (Nunez), which creates funding sources for vehicles and transportation-related fuels research and technology development at a total of about \$125 million/ year, will be contributing to this statewide need. In addition, NRDC agrees that CICS must find a way to bring the publicly-owned utilities into its mission, even if only voluntarily as recommended by PG&E in its Opening Comments. The CICS is only one

³ Each of the four cases cited by CFC involves judicial review of agency decision-making or local regulation. *Strumsky v. San Diego County Employees Ret. Ass’n* (1974) 11 Cal.3d 28, 31 addresses what the proper scope of review is when a court reviews an adjudicatory order or decision of a local agency or state agency of local jurisdiction. *Southern California Edison Co. v. Railroad Com. of California* (1936) 6 Cal.2d 737 addresses the proper scope for judicial review of an order or decision by the former Railroad Commission determining the just compensation a local government must pay for property it takes by condemnation. *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency* (2002) 535 U.S. 302, 306 addresses “whether a moratorium on development imposed during the process of devising a comprehensive land-use plan constitutes a per se taking of property requiring compensation under the Takings Clause of the United States Constitution.” *Goldblatt v. Hempstead* (1962) 369 U.S. 590 involves a challenge to a local ordinance regulating mining excavation. None of these cases lends any credence to the CFC’s argument.

part of the overall statewide climate-related research and education effort (which is why we have proposed the *Action Plan*), and as long as its mission and scope is focused on activities that are relevant and beneficial to the billpayers from which it receives its funding, it is fair and equitable.

A couple of Parties commented on California's high electricity rates as an argument not to invest in additional research and training programs, and listed several individual charges included on customer bills. NRDC agrees that we should not be adding costs to our energy rates that do not provide benefits to customers. Unfortunately, these comments did not distinguish between expenditures that do not provide additional return to customers and investments that have proven that they do. For example, energy efficiency programs are included on that list, but without these investments, customers would not have received more than \$5.3 billion in net benefits over the last decade alone.⁴ In fact, a report recently released from Next 10 stacks California bills up against other states and the nation as a whole and finds that in 2005, "the average monthly residential electricity bill in California was almost half that of Texas and two-thirds the average bill in Florida..." and for natural gas "while similar to bills in Florida and Texas, California's average monthly residential bill is roughly half as high as bills in the rest of the country."⁵ They also cite a UC Berkeley study which concludes that California's residential low energy use is real. "From 1970 to 2004, California decreased its annual residential energy consumption by 35% while other states increased. Alternative explanations including weather, income, prices and economic structure account for at most 15%."⁶

Research and technology investments have also been proven to produce a return for billpayers, as discussed in NRDC's opening comments. Billpayers will receive financial benefits from the significant economic resources that are being dedicated to energy R&D and education. Indeed, studies have shown that billpayers have benefitted substantially from the RD&D investments they have funded, by as much as 6 to 1, and well targeted investments should continue to do so at higher funding levels. (NRDC Opening Comments, pp. 9-12)

⁴ Audrey Chang. California's Sustainable Energy Policies Provide a Model for the Nation. NRDC. November 2006. p3.

⁵ Next 10. California Green Innovation Index: 2008 Inaugural Issue. November 14, 2007. p 21

⁶ Id. p. 21. (Howard Chong & Michael Hanemann. 2007. "Executive Summary, Energy Use Analysis." Unpublished study conducted on behalf of Next 10. Department of Agricultural and Resource Economics, University of California at Berkeley, (October 8, 2007).)

Intellectual Property and Profit Sharing

While we do not have an independent perspective on the legal constraints governing the distribution of royalty income, we agree with the comments suggesting that IOU billpayers should receive financial benefits from the investments made by the CICS. Whether these financial benefits are in the form of direct payments to the billpayers (which the UC suggests might be legally problematic), increased funding of energy RD&D from royalty incomes, or cost savings attributable to advancements in energy technologies, we are confident that these investments will benefit IOU billpayers.

CICS Structure

The UC Revised Proposal did a great job of incorporating the meaningful participation and balanced opportunity for its fellow research and academic institutions. In addition, the Revised Proposal incorporated the “other key government agencies” more fully and definitively than in its original proposal. This list in Attachment 2 includes the CalEPA, Resources Agency, the California Energy Commission and/or the California Air Resources Board. NRDC recommends that both the CEC and the CARB be included on the Board given the critical and directly related nature of their missions to the CICS. In addition, the utilities and other related industry sectors are included as Board members. If industry is included on the Board, then in order to ensure broad and balanced representation, qualified public interest representatives (consumer and environmental) should be included as well.

NRDC supports the simplification of the governing structure of combining the stakeholder and steering committees. However, the “public sector” referred to in the Revised Proposal must include customer (including small, large and agricultural) and environmental representatives. Any stakeholder or steering committees established by the CPUC or the Board should include broad and balanced expert representation.

Modifications/additions to the Revised Proposal must be made in order to ensure the CPUC maintains sufficient control over the prudence of billpayer fund expenditures. In order for the Commission to maintain adequate control to ensure billpayer benefits are maximized, while also creating the necessary environment to foster innovation, we recommend the following: the President of the Commission should be on the Governing Board; the long-term

strategic plan for the CICS should be formally approved by the Commission; the annual research and education agenda, consistent with the long-term strategic plan, should be approved by the Commission through the Advice Letter Process; the process should allow for transparent public information and meaningful participation.

The UC Revised Proposal recognizes that the precise nature and composition of the various committees (and one would presume Board and reporting structure) is likely to change based in part on the feedback of the Parties to this proceeding. NRDC recommends that the nature, composition and reporting structure of the Board and its committees be the subject of the public workshop.

Dated: November 19, 2007

Respectfully submitted



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CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy of the “**Reply Comments of the Natural Resources Defense Council on the Rulemaking to Consider Establishing California Institute for Climate Solutions**” in the matter of **R.07-09-008** to all known parties of record in this proceeding by delivering a copy via email or by mailing a copy properly addressed with first class postage prepaid.

Executed on November 19, 2007 at San Francisco, California.



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